

AMENDMENTS TO THE CLAIMS

Claim amendments and status:

1. (Currently Amended) A bandpass filter of dual mode comprising:  
a dielectric block having a top surface, a bottom surface and first to fourth side surfaces; [[,]]  
a first metal plate to be in a floating state substantially entirely formed on the top surface  
of the dielectric block; [[,]]  
a second metal plate to be grounded formed on the bottom surface of the dielectric block;  
[[,]] and  
means for providing [[a]] coupling between the dual[[ -]] modes, the providing means  
being achieved by a removed portion exposing a part of the bottom surface of the dielectric  
block.
2. (Original) The bandpass filter as claimed in claim 1, wherein the dielectric block  
has substantially rectangular prismatic shape.
3. (Original) The bandpass filter as claimed in claim 2, further comprising a first  
exciting electrode and a second exciting electrode formed on the bottom surface of the dielectric  
block.
4. (Original) The bandpass filter as claimed in claim 2, further comprising a first  
exciting electrode formed on the first side surface of the dielectric block and a second exciting  
electrode formed on the second side surface adjacent to the first side surface of the dielectric  
block.
5. (Canceled)
6. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein  
the removed portion is positioned at a corner of the second metal plate.

7. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein the removed portion is positioned at an inner location of the second metal plate.

8. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein the removed portion has a triangular shape.

9. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein the removed portion has a rectangular shape.

10. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein ~~a dimension of~~ the removed portion is in the form of a sector ~~form~~.

11. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 7~~, wherein the removed portion has a circular shape.

12. (Currently Amended) The bandpass filter as claimed in claim 1 ~~claim 5~~, wherein ~~the number of the~~ there are a plurality of removed portions ~~is plural~~.

13. (Currently Amended) A ~~The~~ bandpass filter ~~as claimed in claim 3, wherein~~ comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;  
a first metal plate to be in a floating state substantially entirely formed on the top surface  
of the dielectric block;

a second metal plate to be grounded formed on the bottom surface of the dielectric block;  
and

means for providing coupling between the dual modes, the providing means ~~[[is]]~~ being achieved by a coupling control stub formed on the bottom surface of the dielectric block and physically connected to the second metal plate.

14. (Original) The bandpass filter as claimed in claim 13, wherein the coupling control stub has a rectangular shape.

15. (Original) The bandpass filter as claimed in claim 13, wherein the coupling control stub has a triangular shape.

16. (Original) The bandpass filter as claimed in claim 13, wherein the coupling control stub has a circular shape.

17. (Original) The bandpass filter as claimed in claim 13, wherein the providing means is also achieved by a removed portion exposing a part of the bottom surface of the dielectric block.

18. (Currently Amended) A The bandpass filter as claimed in claim 3, wherein of dual-mode comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;  
a first metal plate to be in a floating state substantially entirely formed on the top surface of the dielectric block;

a second metal plate to be grounded formed on the bottom surface of the dielectric block,  
the second metal plate being [[is]] in contact with a first edge of the bottom surface and a second edge of the bottom surface adjacent to the first edge; [[,]]

means for providing coupling between the dual modes; and  
a first exciting electrode and a second exciting electrode formed on the bottom surface of the dielectric block, the first exciting electrode being further in contact with the first edge and the second exciting electrode being further in contact with the second edge, the first exciting electrode being in contact with a third edge of the bottom surface opposite to the second edge, and the second exciting electrode being [[is]] in contact with a forth edge of the bottom surface opposite to the first edge.

19. (Canceled)

20. (Canceled)

21. (Currently Amended) The bandpass filter as claimed in claim 18 ~~claim 3~~, wherein no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.

22. (Currently Amended) A ~~The~~ bandpass filter as ~~claimed in claim 4, wherein~~ of dual-mode comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;  
a first metal plate to be in a floating state substantially entirely formed on the top surface  
of the dielectric block;

a second metal plate to be grounded formed on the bottom surface of the dielectric block;  
means for providing coupling between the dual modes; and

a first exciting electrode formed on the first side surface of the dielectric block and a  
second exciting electrode formed on the second side surface adjacent to the first side surface of  
the dielectric block, the first exciting electrode being ~~being~~ ~~is~~ ~~prevented from contacting the second~~  
metal plate by a first removed portion exposing a part of the bottom surface of the dielectric  
block formed along a first edge between the bottom surface and the first side surface of the  
dielectric block, and the second exciting electrode ~~being~~ ~~is~~ ~~prevented from contacting the second~~  
metal plate by a second removed portion exposing another part of the bottom surface of the  
dielectric block formed along a second edge between the bottom surface and second side surface  
of the dielectric block.

23. (Original) The bandpass filter as claimed in claim 22, wherein the providing means is achieved by a third removed portion exposing still another part of the bottom surface of the dielectric block.

24. (Currently Amended) The bandpass filter as claimed in claim 22 ~~claim 1~~, wherein a dimension of each the top and bottom surface of the dielectric block is square.

25. (Currently Amended) A ~~The bandpass filter as claimed in claim 1, wherein~~ of dual-mode, comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;  
a first metal plate to be in a floating state substantially entirely formed on the top surface  
of the dielectric block;

a second metal plate to be grounded formed on the bottom surface of the dielectric block;  
and

means for providing coupling between the dual modes, the providing means being [[is]]  
achieved by removing a corner of the dielectric block.

26. (Original) The bandpass filter as claimed in claim 25, further comprising a first exciting electrode and a second exciting electrode formed on the bottom surface of the dielectric block.

27. (Original) The bandpass filter as claimed in claim 26, wherein no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.

28. (Currently Amended) A bandpass filter of dual-mode comprising:  
a dielectric block having a top surface, a bottom surface and first to fourth side surfaces; [[,]]  
a first metal plate formed on the top surface of the dielectric block; [[,]]  
a second metal plate formed on the bottom surface of the dielectric block; [[,]]  
first and second exciting electrodes formed on the bottom surface of the dielectric block;  
[[,]] and

providing means for providing a coupling between the dual~~[[ - ]]~~ modes, the providing means being achieved by a removed portion exposing a part of the bottom surface of the dielectric block.

29. (Canceled)

30. (Canceled)

31. (Currently Amended) A The bandpass filter as claimed in claim 28, wherein of dual-mode, comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;

a first metal plate formed on the top surface of the dielectric block;

a second metal plate formed on the bottom surface of the dielectric block;

first and second exciting electrodes formed on the bottom surface of the dielectric block,

and

means for providing coupling between the dual modes, the providing means being ~~[[is]]~~ achieved by a coupling control stub formed on the bottom surface of the dielectric block and physically connected to the second metal plate.

32. (Currently Amended) A The bandpass filter as claimed in claim 28, wherein of dual-mode, comprising:

a dielectric block having a top surface, a bottom surface and first to fourth side surfaces;

a first metal plate formed on the top surface of the dielectric block;

a second metal plate formed on the bottom surface of the dielectric block;

first and second exciting electrodes formed on the bottom surface of the dielectric block,

and

means for providing coupling between the dual modes, the providing means being ~~[[is]]~~ achieved by removing a corner of the dielectric block.

33. (Currently Amended) The bandpass filter as claimed in claim 28, wherein the dielectric block has substantially rectangular prismatic shape ~~no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.~~

34. (Currently Amended) The bandpass filter as claimed in claim 30 ~~claim 28~~, wherein the dielectric block has substantially rectangular prismatic shape ~~a dimension of each the top and bottom surface of the dielectric block is square.~~

35. (New) The bandpass filter as claimed in claim 31, wherein the dielectric block has substantially rectangular prismatic shape.

36. (New) A bandpass filter as claimed in claim 28, wherein no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.

37. (New) A bandpass filter as claimed in claim 30, wherein no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.

38. (New) A bandpass filter as claimed in claim 31, wherein no metal plate is formed on any one of the first to fourth side surfaces of the dielectric block.

39. (New) A bandpass filter as claimed in claim 28, wherein a dimension of each the top and bottom surface of the dielectric block is square.

40. (New) A bandpass filter as claimed in claim 30, wherein a dimension of each the top and bottoms surface of the dielectric block is square.

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41. (New) A bandpass filter as claimed in claim 31, wherein a dimension of each the top and bottom surface of the dielectric block is square.